

ABSTRACT OF THE DISCLOSURE

Processes and apparatus are provided for separating molecules of interest from a mixture containing them which comprises subjecting the mixture to an improved method of tangential flow filtration (TFF). The improved TFF was used to clarify, and process various feedstreams for the removal of a molecule of interest. According to a preferred embodiment, a transgenic milk feedstream is stabilized and particulate matter such as fat, casein micelles and bacteria are removed. The method of TFF used in the current invention utilizes optimized process parameters that include temperature, transmembrane pressure, cross-flow velocity, and milk concentration. Cleaning and storage procedures were also developed to ensure long membrane life. An aseptic filtration step was also developed to remove any bacteria remaining in a clarified transgenic milk feedstream.